

SCIENCE

And Technology Program



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Existing fish protection facilities at major water diversions in the South Delta of California are outdated and rely on 1950s technology. Modern fish protection criteria require that Reclamation upgrade technology to comply with native and valued non-native fish species. Listed species under the state and Federal Endangered Species Acts require special attention and protection if contracted water deliveries are to continue. New technologies such as positive barrier screens and debris-free holding and fish transport facilities are extremely difficult to develop in the challenging Delta environment of daily tidal cycles, many fish species and life stages, and heavy exotic debris loads of both plant and animal origin. However, these challenges must be met or serious restrictions of water deliveries will result from excessive losses of fish into diversion canals and pumps.

The goal and objectives for this study are the same: to provide professional fisheries assistance and leadership in developing a major modern fish protection research program for major water diversions in the South Delta, with focus on Reclamation's Tracy Fish Collection Facility. The research facility will be used extensively for fisheries protection research by Reclamation and others in future years.

We successfully acquired the backing and funding from CALFED for going ahead with engineering designs and research plans for a new Tracy Fish Test Facility (TFTF). We completed and chaired 10 monthly interagency meetings with the Tracy Technical Advisory Team (TTAT), a group with representatives from all involved state and Federal agencies. Through TTAT meetings, some 25 "agreements" were developed for guiding engineers in the facility design process for TFTF. It has been concluded that TFTF will go forward with construction that is expected to be completed by September 2002. This will be followed by several years of testing and research. The results of TFTF research and development are considered critical by CALFED for the State's new fish screening and salvage facilities to be built during the next decade near Clifton Court Forebay, north of the Tracy Facility.

USFWS; NMFS; California Departments of Fish and Game, and Water Resources; UC Davis; CALFED; USBR Mid-Pacific Region, Fresno Area Office, and Tracy Projects Office; Virginia Tech University; San Luis Delta-Mendota Water Authority.

Liston, C. R., et al. 1999. A proposed technology development facility to support improvement and/or replacement of fish salvage facilities at Tracy and at other large fish screening sites in the Sacramento-San Joaquin Delta, California. Bureau of Reclamation, Denver Technical Service Center and Mid-Pacific Region. 90 pp plus appendices.